

Lymphocytic Choriomeningitis (LCM)

What is lymphocytic choriomeningitis?

Lymphocytic choriomeningitis (LCM) is a disease caused by the lymphocytic choriomeningitis virus (LCMV). The virus may be found in about 5% of wild mice throughout the United States. The virus can also infect pet rodents (such as mice, rats, hamsters, gerbils, guinea pigs, etc.).

Who gets LCM?

LCM is very rare in humans in the United States. People who have unprotected contact with rodents or their waste/bedding (e.g., owners of pet rodents, laboratory workers who handle infected animals, etc.) are at higher risk of infection. Virus is present in the blood and tissues of infected people; therefore, organ donation recipients have been infected if the donor was carrying the virus. People who have weakened immune systems (e.g., HIV-positive persons, organ-transplant recipients, etc.) are at higher risk of severe disease if infected.

How is LCM spread?

Urine, feces, saliva, or blood of an infected house mouse (*Mus musculus*) or pet rodent may contain LCMV. People may become infected with LCMV by contact (through a mucus membrane or break in the skin) with fresh urine, droppings, saliva, or nesting materials from infected rodents. Person-to-person transmission has not been reported, with the exception of infected mother to fetus and by organ transplantation.

What are the symptoms of LCM?

People with LCM may have no symptoms. However, infection sometimes causes an illness that may range from mild to life-threatening. The initial phase of infection can be a flu-like illness. Following a few days of recovery, the second phase of the disease occurs. This may include fever, headache, nausea, vomiting, stiff neck, confusion, drowsiness, and paralysis.

How soon after exposure do symptoms appear?

Symptoms may appear anywhere from 8 to 13 days after exposure.

How is LCM diagnosed?

There is no routine test for LCM, but special laboratory tests do exist and can be ordered by your healthcare provider.

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What is the treatment for LCM?

There is no specific treatment for LCM. Severe infection may require hospitalization and supportive treatment.

How can LCM be prevented?

LCM can be prevented by avoiding contact with house mice. Rodent-proofing the home, safe cleaning practices, and trapping wild rodents reduce the risk of infection. To clean mouse droppings, soak the area with a bleach solution (1/4 cup bleach in 1 gallon of water) first and then wipe them up to prevent the virus from getting into the air.

Clean rodent cages outdoors and keep rodents away from food preparation areas. Always wash hands after handling pet rodents or their cages/bedding. Never kiss or handle a pet rodent close to the face. Young children should be supervised closely when cleaning cages or handling rodents.

What should I do if I've been in contact with a person who has LCM?

If you think you have been exposed to LCMV and are pregnant or have a weakened immune system, you should contact your healthcare provider, even if you do not feel ill. If you think you have been exposed to LCMV and develop symptoms suggestive of LCM, contact your healthcare provider. In either case, be sure to tell your provider that you have had close contact with a mouse or other rodent, or their cages or bedding material.

Should pregnant women take additional precautions?

Pregnant women should try to avoid all contact with rodents. Avoid contact with wild rodents. If you have a household rodent infestation, it should be addressed promptly by a professional pest control company or another member of the household. Keep your pet rodent in a separate part of the home and ask another family member or friend to clean the cage and care for the pet. Avoid prolonged stays in the room where the rodent is kept.

How can I get more information about LCM?

- 1) If you have concerns about disease, contact your healthcare provider.
- 2) Call your local health department. A directory of local health departments is located at <http://www.vdh.virginia.gov/LHD/index.htm>.